MILWAUKEE AREA ATARI USERS CLUB

MILATARI NEWSLETTER

Volume 2 Number 4

March 1983

Price $1.00

** MILATARI FINDS A NEW HOME **

The search committee has found a new home for our growing club. It is the Armbruster School in Greendale. We will be meeting in the Multi-purpose room which will be able to handle the club's growth for at least one year. This month will will be using the stage for the basic class and the main hall for the technical session and business meeting. We will be able to rent additional class rooms for special demonstrations and classes during future meetings as required.

Armbruster School is located at 7000 Greenway which is on the east side of Southridge Shopping Center. A map is included on the last page of this newsletter for your convenience.

Thanks to Chris Stieber for making the arrangements with the Greendale Park and Recreation Department.

NEXT MEETING — Saturday, March 19th

The planned adgenda for the March meeting is:

2:00 PM	BASIC class - "Graphics"	Meet on stage
2:15 PM	Technical session	Meet in multi-purpose room
2:00 PM to 3:00 PM	Library open	Multi-purpose room
3:00 PM	Business meeting - Presentation of proposed by-laws - Speaker from North Central Marketing (tentative) - Demonstrations	Multi-purpose room

The library will open after the business session.

** IN THIS ISSUE **

We continue the presentation of the *DEMOPAC* series provided by the Product Support Group at ATARI, Inc. This month the tutorial concerns data file processing on cassette.

President Gary Nolan reviews the very successful Computer faire held at Brookfield Square in his regular column, "PRESIDENT'S RAM". In preparation for the computer faire, Gary had an opportunity to work with the new ATARI 1200XL computer. His review of the 1200XL highlights many of the plus and minus points of this new computer from ATARI.

MICROSHARE -- The Microcomputer Timeshare System features are presented. This service by John Taylor (of MAUDE) will soon have MILATARI disk library on line. Read about the features of this system.

MILATARI * * * MARCH 1983

Milwaukee Area ATARI Users Group

This newsletter is written and printed by members of the Milwaukee Area ATARI Users Group (MILATARI), an association of individuals with a common interest in using and programming ATARI computers. MILATARI is not affiliated with the ATARI company, nor any other commercial organizations.

All articles are written and donated by the membership. Opinions expressed in this publication are those of the individual author and do not necessarily represent, nor reflect, the opinions of MILATARI nor those of any other commercial or non-commercial organizations. Any article appearing in this newsletter may be reproducted, providing credit is given to the author and to MILATARI.

Write MILATARI Newsletter at P.O. Box 1191, Waukesha, WI 53187 for more information.

MEMBERSHIP INFORMATION

Membership is open to individuals and families who are interested in using and programming ATARI computers. The membership includes the subscription to this newsletter and access to the user's library. The membership fee is $15.00 per year. Contact Larry Leskovsek, Treas. at 547-0249 or write MILATARI, P.O. Box 1191, Waukesha, WI 53187 for more information.

MEETING INFORMATION

MILATARI meetings are held once monthly. This month the meeting will be held at the Armbruster School, 7000 Greenway, Greendale, WI. The meeting is held in the multi-purpose room. BASIC classes begin at 2:00 P.M. Technical sessions are also held a 2:00 P.M. The business session begins at 3:00 P.M. followed by demostrations. The library will be open before and after the business meeting.

MILATARI Officers:

President	Gary Nolan 353-9716
Vice-president	Nick Liberski 786-8434
Secretary/ Treasurer	Larry Leskovsek 547-0249
Education	Linda Scott 466-2314
Cassette Librarian	Ron Friedel 354-1717
Disk Librarian	Steve Booth 367-8739
Publications Librarian	Karl Buschhaus 774-2576
Newsletter Editor	David Frazer 542-7242

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Technical support Group:

The following members have indicated a willingness to assist MILATARI members.

William Lawrence	1-968-3082 Programming
Don Wilcox	228-1650 Programming
Erik Hanson	252-3146 Prog/Tech
Gary Nolan	353-9716 Prog/Tech
David Frazer	542-7242 Prog/Tech
Steve Booth	367-8739 Programming

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MILATARI Bullentin Board:

The MILATARI Users Group maintains a 24 hr bulletin board service. Messages may be posted and read and public domain programs uploaded and downloaded. The system operates at 300 baud. The phone number is 352-2772.

PRESIDENT'S RAM

by Gary Nolan

WHAT THIS CITY NEEDS IS A GOOD COMPUTER SHOW!!

Well, that's just what we gave them!

I want to start off by saying THANK YOU, to everyone who manned our booth at the Personal Computer Faire. You people did a tremendous job. A special thanks to Don Wilcox for putting together our display. It's too bad that Don came down with the flu the day before the show. Even so, he was there both days to help with set-up and take-down. And that friends is commitment. We would also like to thank some people who didn't work at the booth but helped make ours one of (if not the) best displays there. To the people at Taylor Electric for the use of a disk drive, interface and that great 25" RCA monitor. To all the dealers who let us place posters and flyers in their stores, thank you. ATARI for advertizing material. And a special thank you to North Central for sending us a 1200XL to demo at the Faire. (See review in this issue)

We dispelled a lot of misconceptions in two days. One was that the Atari is just a game machine (if I hear that one more time, I go for the throat), and the other was that the Sinclaire is useless. All in all I think the people working the show had as much fun (if not more) as the people who came to look and ask questions. And ask them they did. I still don't know how I managed to keep my voice from giving out completely on Sunday. It was gone Saturday night.

I know I'll miss someone but here goes. I'd like to thank Dave Frazer for being there both days and demoing Visicalc, Letter Perfect, Data Perfect and explaining the more business like uses of the system. He impressed a lot of people. Gerhardt Steinke for filling in for Don and bringing a lot of Atari related books. Karl Steinke for helping set up, take down and run programs. They were there for both days. Pete Kurth who made a mad dash over Sat. afternoon with his 400, when the one from Schaak didn't work. And to Joe Kasper, who like me wasn't supposed to be at the booth but couldn't stay away, for running the BBS demo. And to all of you who brought programs, systems and yourselves, a big THANK YOU! You did yourselves and MILATARI proud.

From the "Where is Tom Jefferson when you need him most?", file.

As you know for the past couple of months Dave and Linda have been working on the by-laws. At this months meeting we'll have a rough draft of the constitution/by-laws for you to study. We'll also be taking nominations for officers. Both subjects will be voted on at the April meeting. We would like nominations for all offices, vice-president and the new office of secretary in particular. Nick Liberski present V-P is retiring due to job conflicts. Larry Leskovsek our sec/treasurer is swamped with work and needs help, so the job will be split. The group is large enough that we should have a secretary to keep track of what we're doing anyway. The remainder of the officers have agreed to run for re-election. If you have someone you think is qualified for a position, nominate them. And if after looking over the by-laws draft you find something you think should be changed or included, call Dave Frazer , Linda Scott or myself. We'll see to it that it's brought up at the April meeting. The next two meetings will be important to all members for the coming year. So, if you want to have a voice in the running of the group be there!

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PRESIDENT'S RAM (con't)

Equipment news:

Rana Systems is bringing out a line of drives for the Atari computers. They plan to go into production April 1st. List price will be $399. No technical info from them yet, maybe before the meeting. But we do know that this is a single/double density drive that is compatible with Atari DOS. See their ad in the March BYTE (p42-43).

Micro Mainframe is taking advance orders on their new disk drive unit. The price until March 31st will be $449.95 after that it goes to $699. So if you're looking for something other than the 810 check out their ads in ANTIC (p30) or ANALOG (p7). We should have some technical data from them by meeting time.

Club news:

You probably noticed the new logo on the front page. It was designed by our own Royal Chiu. When Atari sent us the ACE logo for user group use we were underwhelmed with what looks like a copy of the logo from the pipe division of an un-named gun maker, and a chain of transmission repair centers. (What's this? Could it be copyright infringment? Nooo. Not from our boys in Sunnyvale. Maybe the latest rumor that the marketing dept. and legal dept. share office space IS true) Well, we asked Royal to design a logo for club use. At last months meeting he gave us his answer. And all I can say is, I LIKE IT!! So did everyone there, as did a lot of people at the Faire. So that symbol you see on the newsletter.

Misc news:

Last October I mentioned Nolan Bushnell the founder of ATARI Inc. and some of his future plans. Well I was wrong about the expiration date of the non-competitive pact he signed when he left ATARI. It expires Sept 30, 1983. He hinted in an interview that on Oct 1st he was rejoining the video game fray with a machine that just might have a three dimensional playfield. Want to know what he's been doing with the 15 mill. he had when he left ATARI? First thing he did was to team up with one of the people who designed the 800/400 computers, but left ATARI because he didn't like the way the computers were being handled. Together they formed AXLON (sound familiar?), and built memory expansion boards for the 800 and APPLE computers among other things. He also is owner of Pizza Time restaurants (you know, Chucky Cheese) and TimberTech Computer Camps. But most important, he is using his money to help start a lot of new companies that are getting into new fields. A very interesting personality. Pick up this months issue of INC. magazine to read more about him, it's worth the time.

Speaking of ATARI, they have hired one Dr. Marcian Hoff, Jr. to be VP of research and development for their three divisions. Dr. Hoff, who is considered the father of the microprocessor, comes to ATARI from INTEL where he worked for the last fourteen years. While at INTEL he received patents on thirteen products. Before joining INTEL Dr. Hoff had held a teaching fellowship at Stanford Univ.. Now if ATARI would only hire some marketing people with the same type of credentials.

So until the 19th.....

* * * * *

Newsletter Submissions

Please submit all articles in machine readable form (disk or cassette will be returned). You may also call me to upload your files.

DATA FILE PROCESSING

Storing data on the ATARI 410 (tm) Program Recorder and the ATARI 810(tm) Disk Drive

1) Storing Data on Cassette
2) A Simple Data File on Cassette
3) An Example of Cassette I/O
** Disk tutorials will appear in the April issue of this newsletter **
4) Storing Data on Disk
5) Example of Disk I/o: Disk Mailing List
6) Random Access

Information provided by:

ATARI INC.
CONSUMER PRODUCT SERVICE
PRODUCT SUPPORT GROUP

DEMOPAC #2

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DATA FILE PROCESSING
Storing Data on Cassette
WBB 1/82

A data file is a string of bytes stored on magnetic media independent of any program.

The ATARI 410 Program Recorder stores data on standard audio cassette tapes. The 410 Recorder is called a sequential device because files are distinguished only by their physical location on the tape. Proper positioning of thetape is crucial to insure dependable operation. For this reason, the recommended procedure is to store only one file on each side of a tape. Record the file immediately after the tape header. The data is transfered over the serial bus to the 410 Recorder at the rate of 600 bits/second or 60 characters/second. The storage capacity of a tape is roughly 1000 characters/minute. Therefore a 60 minute tape would allow storage of about 30,000 bytes on each side.

All data files on tape consist of three sections. There is a 20 second leader of mark tone, followed by any number of data blocks consisting of a pre-record write tone (PRWT), 4 control bytes, 128 data bytes, and a post-record gap (PRG). Finally, there is an end-of-file mark. Each of these sections is audible through the TV speaker during data transmission. The procedure for creating a data file on the 410 Recorder from BASIC is to do an OPEN, a series of outputs (PRINT #N: or PUT #N:), and a CLOSE.

The OPEN command establishes a channel from the token file in RAM to the 410 Recorder. There are eight channels in the system numbered 0-7. The OS uses 0,6,7 at various times so should use 1-5. The correct syntax for the write mode is: OPEN #1,8,0,"C:". When this command is executed, the keyboard buzzes twice to remind you to position the tape and engage 2 keys

(PLAY and RECORD) on the 410 Recorder. You need to acknowledge this action by pressing any key on the keyboard (RETURN). The OS then writes 20 seconds of mark tone. It does not automatically shut off the cassette motor. The motor is shut off only after a data block is written on the tape. This is not a problem if all of the data is written out immediately after the file is opened.

The output commands, PRINT #N and PUT #N, transfer data from the token file to the buffer for the tape. When the buffer fills up with 128 bytes, the OS writes a data block to the tape, turns off the motor, and clears the buffer. Two types of I/O can be used to write data to a file, character I/O or record I/O.

Character I/O means that you write data one byte at a time with none of the values inperpreted as control characters. The statement PUT #N,X transfers one ASCII byte to the data file.

Record I/O means that you write data one field at a time with the End of Line (EOL) character (ASCII 155) used to delimit the end of each field. The EOL character is automatically generated by the PRINT #N statement. If one field is transferred with each PRINT #N; statement, all fields will be properly separated. The syntax of the PRINT statement should include a semicolon and not a comma. A comma is interpreted as a tab, so 10 blank spaces would be inserted in front of your data. The following statements transfer 10 fields to a data file.

```
DIM NAME$(16)
OPEN #1,8,0,"C:"
FOR I=1 TO 5
PRINT "NAME...";:INPUT NAME$
PRINT "AGE...";:INPUT AGE
PRINT #1;NAME$
PRINT #1;AGE
NEXT I
CLOSE #1
```

The CLOSE command writes the current buffer as the last data block and then writes the end of file mark to the tape.

The procedure for reading data from a tape data file from BASIC is do and OPEN, a series of inputs (INPUT #N or GET #N), and a CLOSE.

The OPEN command establishes a channel to the 410 Recorder. The correct syntax for the read mode is: OPEN #1,4,0,"C:". When this command is executed, the keyboard buzzes once to remind you to position the tape and engage one key (PLAY) on the 410 Recorder. Acknowledge this action by pressing any key on the keyboard (RETURN). The OS turns on the cassette motor and reads past the mark tone. It does not shut off the motor. The motor is shut off only after a data block has been read from the tape. This should never be a problem if you open the tape file only when you are ready to read the data from it.

The data should be read from the file in the same fashion that it was written to the file, record or character I/O. Character I/O reads one byte at a time with none of the values being interpreted as control codes. The GET #1,X transfers one ASCII byte from the data file to the variable X.

Record I/O reads one field at a time with EOL (ASCII 155) used to delimit the end of each field. Many fields can be transferred with each INPUT #N statement. The following statements transfer 10 fields from the data file.

```
DIM NAME$(16)
OPEN #1,4,0,"C:"
FOR I=1 TO 5
INPUT #1,NAME$,AGE
PRINT NAME$,AGE
NEXT I
CLOSE #1
```

There are three ways to read all the data from the file and exit without error. If you know how many dields were written, you can simply read the same number of fields, as is the example above. If the number of fields changes, yous can write a field with a special value at the end of the file and check for this value after each input. If you don't know what's in the file, you can use the TRAP command. When the end-of-file error 136 occurs, the TRAP command will send you to your error routine. The routine should check that location 195 (error status) does contain 136, and then CLOSE the file.

Note 1:

If the PRINT or PUT commands do not immediately follow the OPEN command, the motor stays on and garbage may be written onto the tape, making it unreadable. A solution to this problem is to write a dummy record of 128 blanks immediately after opening the file. The following statements accomplish this.

```
FOR I=1 to 127:PUT #1,32:NEXT I:PRINT #1
```

When you OPEN the file to read it, you must immediately read past this dummy record. An input of any string variable accomplished this.

```
DIM A$(1):INPUT #1,A$
```

Note 2:

It is possible to transfer more than one field with each PRINT statement. However, you must write the EOL character after each field.

```
PRINT #1:NAME$;CHR$(155);AGE
  or
DIM CR$(1):CR$=CHR$(155)
PRINT #1;NAME$;CR$;AGE
```

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ATARI MICROCOMPUTER NET

There is a network for amateur radio operators who have ATARI microcomputer systems. The net meets Sundays at 1600 Z on 14.325 MHz. For more information, contact:

Jack McKirgan II, WD8BNG
4749 S.R. 207 N.E.
Washington C.H., Ohio 43160
(614)869-3597

```
1 REM A SIMPLE DATA FILE ON CASSETTE
2 REM PY/JB 2/82
3 REM ******************************
4 REM create a simple file on names on a tape
5 REM read them back and print them
6 REM on the screen, or on a printer
7 REM ****************************************
10 DIM BLANK$(128),NAME$(20),ANS$(3)
20 OPEN #1,8,0,"C:":REM open a file for output on the cassette
30 FOR I=0 TO 128:REM create dummy record
32 PUT #1,32:REM of 128 spaces
34 NEXT I:REM to stop motor
35 PRINT #1:REM end dummy record with a carriage return
40 PRINT "NAME";:INPUT NAME$:REM user types in data
50 PRINT #1;NAME$:REM print the data into the cassette file
60 PRINT "MORE DATA (Y/N);:INPUT ANS$"
70 IF ANS$(1,1)="Y" THEN GOTO 40
80 IF ANS$(1,1)="N" THEN GOTO 100
90 GOTO 60
100 CLOSE #1:REM if there is no more data, close the file
110 STOP
150 REM ************************************************
160 REM the tape now contains a list of names
161 REM to read the names back, rewind the tape,
162 REM and type CONT to continue.
163 REM ************************************************
200 OPEN #1,4,0,"C:":REM open an input file on the cassette
210 TRAP 300:REM in case of error, go to close the file
220 INPUT #1,BLANK$:REM get the dummy record and throw it away
230 INPUT #1,NAME$:REM read a name from the tape
240 PRINT NAME$:REM print it on the screen
250 LPRINT NAME$:REM print it on the printer
251 REM (delete line 250 if you don't have a printer)
260 GOTO 230:REM get further names from file
261 REM if there are no more names, an end-of-file error occurs
262 REM and the error-tape goes and closes the file
300 CLOSE #1
310 END
```

DATA FILE PROCESSING
AN EXAMPLE OF CASSETTE I/O
WBB/JB 3/82

The following set of programs sets up and maintains a simple mailing list using the 410 Program Recorder. The programs show a method of storing data in data files on the tape. The first programs initializes the file by reserving space for each entry. The second updates the information in the file. The third prints out the contents of the file.

The key concepts illustrated are openinf a data file with the OPEN statement, and writing to that file using the PRINT #1; statement. In this simple example, only one variable is written at a time, so no extra data separators are necessary.

In order to update a cassette file, the complete file is read into memory, and stored in a long array-string. This process provides a good example of string manipulation, and the long-string method of keeping string-arrays.

When the update is complete, the file is written back out to tape.

```
1 REM CASSETTE INIT
2 REM WBB/JB 3/82
3 REM run this program first to reserve file space on the tape
4 REM ************************************************************
10 DIM NAME$(100*24),ADDR$(100*24),CITY$(100*16),STATE$(100*2),ZIP$(100*5)
20 DIM PHONE$(100*8),BLANK$(24)
25 REM each field is stored in a long-string variable--
26 REM there is space for 100 records
30 BLANK$="                        ":REM a string of 24 spaces
40 FOR I=1 TO 100
50 PRINT "INITIALIZING SPACE FOR...";I
60 NAME$(I*24-23,I*24)=BLANK$
70 ADDR$(I*24-23,I*24)=BLANK$
80 CITY$(I*16-15,I*16)=BLANK$
90 STATE$(I*2-1,I*2)=BLANK$
100 ZIP$(I*5-4,I*5)=BLANK$
110 PHONE$(I*8-7,I*8)=BLANK$
120 NEXT I
130 REM all of the records now contain the correct number of blanks --
140 REM the blank records now get saved to tape
150 PRINT :PRINT "PREPARE TAPE FOR WRITING,"
160 PRINT "PRESS 'START' TO CONTINUE..."
165 IF PEEK(53279)<>6 THEN 165:REM wait for start key
170 OPEN #1,8,0,"C:":REM press play and record on cassette unit
180 FOR I=1 TO 100
190 PRINT "WRITING FILE SPACE FOR...";I
200 PRINT #1;NAME$(I*24-23,I*24)
210 PRINT #1;ADDR$(I*24-23,I*24)
220 PRINT #1;CITY$(I*16-15,I*16)
230 PRINT #1;STATE$(I*2-1,I*2)
240 PRINT #1;ZIP$(I*5-4,I*5)
250 PRINT #1;PHONE$(I*8-7,I*8)
260 NEXT I
270 CLOSE #1
280 REM the file space is now reserved on the tape
290 PRINT :PRINT "REWIND THE TAPE"
300 PRINT "** END OF INITIALIZATION **"
310 END

1 REM CASSETTE UPDATE
2 REM WBB/JB 3/82
3 REM use this program to enter or change information in the file.
4 REM ************************************************************
10 PRINT CHR$(125):REM clear screen
20 PRINT "ENTER OR REPLACE RECORDS"
25 REM set up long-string variables
30 DIM NAME$(100*24),ADDR$(100*24),CITY$(100*16),STATE$(100*2),ZIP$(100*5)
40 DIM PHONE$(100*8),BLANK$(24),X$(24)
50 BLANK$="                        ":REM string of 24 spaces
60 REM ************************************************************
70 REM read in existing file from the tape
80 PRINT "PREPARE TAPE FOR READING,"
90 PRINT "PRESS 'START' TO CONTINUE..."
100 IF PEEK(53279)<>6 THEN 100:REM wait for start key
110 OPEN #1,4,0,"C:":REM press play on cassette unit
120 FOR I=1 TO 100
```

```
130 PRINT "READING DATA FOR...";I
140 INPUT #1,X$:NAME$(I*24-23,I*24)=X$
150 INPUT #1,X$:ADDR$(I*24-23,I*24)=X$
160 INPUT #1,X$:CITY$(I*16-15,I*16)=X$
170 INPUT #1,X$:STATE$(I*2-1,I*2)=X$
180 INPUT #1,X$:ZIP$(I*5-4,I*5)=X$
190 INPUT #1,X$:PHONE$(I*8-7,I*8)=X$
200 NEXT I
210 CLOSE #1:REM the string-arrays now hold the data from the saved file
215 REM ************************************************************
220 REM -- update the file --
221 REM ask user which record to look at,
222 REM then call subroutine which displays that record
223 REM and replace it with new data as entered by user.
230 PRINT :TRAP 240:REM in case of inputerror, keep trying
240 PRINT "ITEM (1-100)(0 TO END)...";:INPUT I
245 TRAP 40000:REM turn off error trap
250 IF I=0 THEN 300:REM if no more records, go write them out
260 IF I<1 OR I>100 THEN 230:REM bad number, try again
270 GOSUB 1000:REM call subroutine which displays and updates data
280 GOTO 230:REM get next record number
290 REM ************************************************************
295 REM -- write the updated file back out to tape --
300 PRINT :PRINT "PREPARE TAPE FOR WRITING,":REM rewind or turn over tape
310 PRINT "PRESS 'START' TO CONTINUE..."
320 IF PEEK(53279)<>6 THEN 320:REM wait for start key
330 OPEN #1,8,0,"C:":REM press play and record on cassette unit
340 FOR I=1 TO 100
350 PRINT "WRITING DATA FOR...";I
360 PRINT #1;NAME$(I*24-23,I*24)
370 PRINT #1;ADDR$(I*24-23,I*24)
380 PRINT #1;CITY$(I*16-15,I*16)
390 PRINT #1;STATE$(I*2-1,I*2)
400 PRINT #1;ZIP$(I*5-4,I*5)
410 PRINT #1;PHONE$(I*8-7,I*8)
420 NEXT I
430 CLOSE #1:REM the updated file is now on the tape
440 PRINT :PRINT "REWIND THE TAPE"
450 PRINT "  ** END OF PROGRAM **"
460 END
470 REM ************************************************************
990 REM the following subroutine displays the desired record,
991 REM asks the user whether it should be changes,
992 REM and performs the change if requested.
1000 PRINT :PRINT "RECORD NUMBER...";I
1010 PRINT "NAME ",NAME$(I*24-23,I*24)
1020 PRINT "ADDRESS ",ADDR$(I*24-23,I*24)
1030 PRINT "CITY ",CITY$(I*16-15,I*16)
1040 PRINT "STATE ",STATE$(I*2-1,I*2)
1050 PRINT "ZIP ",ZIP$(I*5-4,I*5)
1060 PRINT "PHONE ",PHONE$(I*8-7,I*8)
1070 PRINT :PRINT "DO YOU WISH TO REPLACE (Y/N)...";:INPUT X$
1080 IF X$<>"Y" THEN RETURN
1085 REM ************************************************************
1090 REM the following section calls a subroutine which
1091 REM gets the new data, and blank-fills if necessary
1092 REM so that all fields are the proper length.
1093 REM the input field, with the blank-fill, is then
```

```
1094 REM put into the string-array in the correct place.
2000 PRINT "NAME",
2005 GOSUB 3000:NAME$(I*24-23,I*24)=X$
2010 PRINT "ADDRESS",
2015 GOSUB 3000:ADDR$(I*24-23,I*24)=X$
2020 PRINT "CITY",
2025 GOSUB 3000:CITY$(I*16-15,I*16)=X$
2030 PRINT "STATE",
2035 GOSUB 3000:STATE$(I*2-1,I*2)=X$
2040 PRINT "ZIP",
2045 GOSUB 3000:ZIP$(I*5-4,I*5)=X$
2050 PRINT "PHONE",
2055 GOSUB 3000:PHONE$(I*8-7,I*8)=X$
2060 RETURN
2070 REM ************************************************************************
2080 REM here is the subroutine that gets the new data
2090 REM and blank-fills if necessary
3000 INPUT X$
3010 IF LEN(X$)<24 THEN X$(LEN(X$)+1)=BLANK$:REM concatenate spaces
3020 RETURN

1 REM CASSETTE PRINT
2 REM WBB/JB 3/82
3 REM this program gets the data file from the tape
4 REM and prints it out on a printer
5 REM ********************************************************
10 PRINT CHR$(125):REM clear screen
20 PRINT "MAKE SURE YOUR PRINTER IS TURNED ON,"
30 PRINT " AND PREPARE THE TAPE FOR READING..."
40 PRINT "PRESS 'START' TO CONTINUE..."
50 IF PEEK(53279)<>6 THEN 50:REM wait for start key
60 POKE 201,2:REM set comma print zone at 2 spaces
70 DIM X$(24):REM only one variable is used
80 OPEN #1,4,0,"C:":REM press play on cassette unit
90 OPE     90 OPEN #2,8,0,"P:":REM open printer for output
98 REM the followi g section gets each field fron the tape file
99 REM and prints it to the printer file
100 FOR I=1 TO 100:REM read and print 100 records
110 PRINT "READING DATA FOR...";I
120 PRINT #2;"READING...";I
130 INPUT #1,X$:PRINT #2;X$
140 INPUT #1,X$:PRINT #2;X$
150 INPUT #1,X$:PRINT #2;X$
160 INPUT #1,X$:PRINT #2;X$
170 INPUT #1,X$:PRINT #2;X$
180 INPUT #1,X$:PRINT #2;X$
190 NEXT I
200 PRINT "REWIN  THE TAPE"
210 PRINT " -- END OF PROGRAM --"
220 CLOSE #1
230 CLOSE #2
240 END
```

Demopac #2 continues next month with the tutorial on storing data on disk.

MICROSHARE (SM)

The Microcomputer Timeshare System

From information provided by MICROSHARE

MICROSHARE is a commercial system oriented toward the user of small computers. It is telephone access system based in Milwaukee.

The primary services offered by MICROSHARE are:

PUBLIC DOMAIN LIBRARY: Hundreds of programs are available for downloading to you computer. MICROSHARE currently offers all of the volumes in the libraries of the CP/M User's Group, the Amateur Computer Group New Jersey, and the Chicago Area Computer Hobbyist Exchange. (Preparations are under way to include the MILATARI program libraries on this system.)

PERSONAL PROGRAMMING: You can write, store and retrieve your own programs and data on the MICROSHARE equipment using either BASIC-80 or CBASIC. You may also run the library programs which are written in these languages. You may transfer between the MICROSHARE equipment and your computer at anytime.

ADVENTURE GAMES: You can play any of the adventures written by Scott Adams of Adventure International.

It costs $2.25 per hour to use the system. If you choose to store programs or data in your private work area, there is a monthly storage charge of ten cents for each 1,024 characters. Initial registration is just $10.00.

For more information, or to obtain a service application, contact MICROSHARE, Taylor Electric Co., PO Drawer 11N, Milwaukee, WI 53201. Or phone 241-4321.

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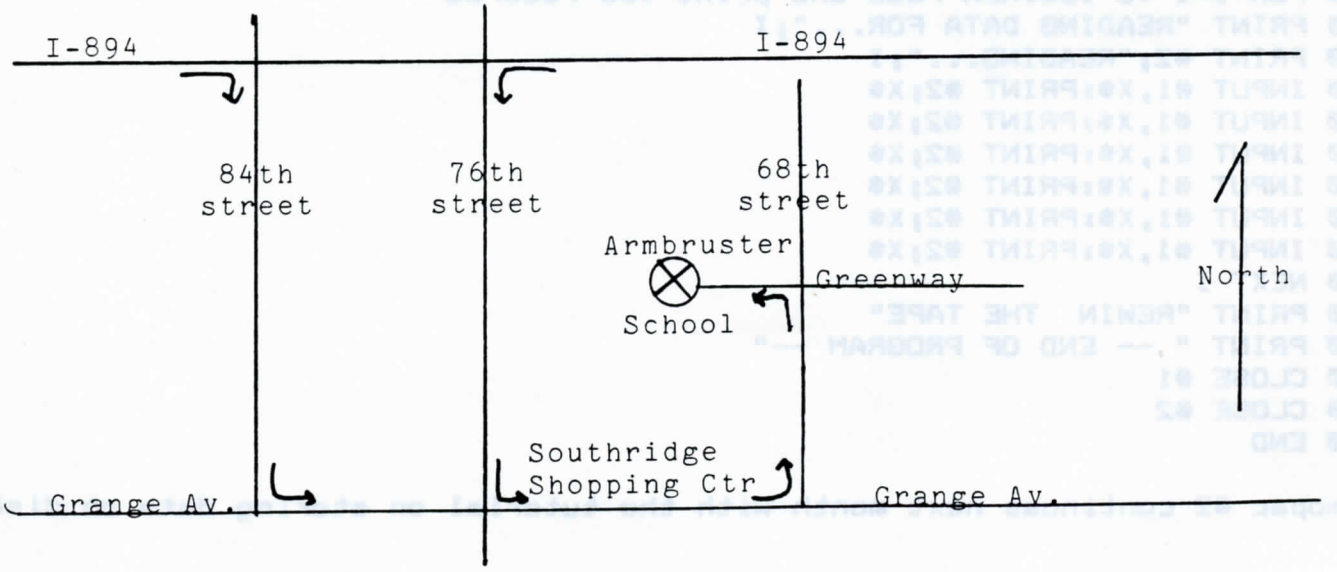
MAP to Armbruster School



PRODUCT REVIEW: Atari 1200XL

by Gary Nolan

As you know or maybe didn't know, we had a 1200XL computer at the show. It was one of two in the state and drew a lot of interest. Most of the people wanted to know what the differences where between it and the 800, and was it worth the reported list of $899. Here is some of what I found in using this machine before, during and after the show. I picked the 1200 up on the Fri. afternoon before the show and being the concerned person I am ,wanted to make sure it worked before putting it on display. Really, that's all. Anyway, on unpacking it you notice how light and compact it is. All the connecting ports are in the back, which I liked. And you can disconnect the RF cable from the computer which is nice. Joystick sockets (2) are on the left side and angled towards the front. Directly behind them is the cartridge slot. The cartridges from some companies will have to be modified in order to fit. Atari has designed this slot to prevent a cart.from being inserted the wrong way. Atari Inc. carts will work fine but Letter Perfect carts won't. All that's involved is cutting one of the leading edges shorter than the other. Once the cart is in it's hard to see as it's recessed into the machine. This could be a bother at times. The on/off switch is behind the cart slot.

Plug in the power pack, slide in a cartridge, flip the switch and go to town. Turn it on without a cart in or the disk drive turned on and it displayes the word ATARI in large letters with a multi-colored rotating rainbow pattern. Press the HELP key located on the top strip of chrome function keys and a self test menu appears. You have four choices; Memory test, Audio/visual test, Keyboard test, and All tests.

Memory test checks the ROM and RAM portions and takes the longest of any of the tests.

Audio/visual test checks each of the four sound chips and presents a picture of a musical staff and the notes being played when each is checked.

The Keyboard test lets you check each key to make sure that each one is making proper contact.

The last selection runs thru all the tests automatically

The START, SELECT, OPTION, SYSTEM RESET, BREAK and inverse video keys are also in this strip of keys along with four function keys. Used alone these four keys are curser control keys. Used with the shift key they "home" the curser to the four screen corners. When used with the control key they will turn off the keyboard click, kill the output to the screen, lock the keyboard and switch between the internal graphic characters and new European letters and symbols.

Keyboard layout is the same except for inverse video (Atari symbol) key and the Break key being moved up to the function strip. The Delete, Control and both Shift keys were made bigger to "square" off the keyboard.

As to operational features, weell, nobody really noticed that big of an improvement in either the color or sound. The colors might have been a little crisper, but then it was hooked up to a new RCA, 25" monitor/receiver that had direct video inputs. So it was hard to tell if the computer or the monitor made the difference. As for the sound, the RCA has a 5 watt stereo amp and decent speakers in it. So it was hard to tell which made the improvement.

No software was available to test the new GTIA modes, but we did test other programs for compatability. Two that did not work were the ones I really wanted to try, Letter and Data Prefect. No luck. Spell Wizard does some strange things, like spelling any words called from the dictionary with a combination of four letters w-e-u-m. That's it, just those letters no matter what word you try. Filemanager 800 will not even load. There will be other programs, I'm sure, that will have to be re-written. It'll be

interesting to see how many.

One thing is for sure, this IS an ATARI computer. The drives STILL go to sleep.

Things I like? The keyboard, especially the placement of the Break and inverse video keys up and out of the way. The hook-ups in the back, joystick ports on the side and the IDEA of A function strip.

Things I didn't like? THE PRICE!! The cartridge slot, but I guess I could get use to it. The output to my USI amber monitor was marginal at best. The fact that it's locked up and no way to expand the memory. No 80 col. capability. But then how many "home" users want that now?(more than they think) Lack of a numeric keypad. Try entering a ton of DATA statements, run a decent visicalc program or keep track of a checking account (all "home" uses), then tell me that a key pad is only for business use.

Things that didn't impress me?

The styling. Two thirds of the functions of the function keys. Lets face it, I don't write that many letters to either Germany or England. Do you? The fact that they tout it as having 64K of RAM (yes Virginia, RAM). Funny when I put Basic in and typed ?FRE(0), I got the same answer on both the 800 and 1200. And the 800 has only 48K of "RAM". I know about disabling the OS and all that, but how many "home" users will know how to do it.

Personal Opinions:

All in all a kind of blah machine to an 800 owner and a confusing one to the first time buyer. I'm not going to rush out and buy one, and right now with what's known about it, I can't recommend it over an 800. But time always tells. Maybe they have a way to expand it. That by the way was the third most asked question at the show! Even people who are just starting to look for a computer are talking expansion. I think ATARI made several mistakes with this machine that they should admit to, now, before they get too far in the hole and can't get out.